



Pertussis Report

September 15, 2011

- **New in this report:** Disease activity in 2011 remains steady and is still at relatively increased levels throughout the state.
- **2011: 2,462 cases with onset in 2011** have been reported to CDPH. The state rate is **6.2 cases/100,000**.
 - Disease activity levels remain high; the number of cases occurring in the early months of 2011 was higher than the number reported during the peak months of 2005 (Figures 1 and 2).
 - 162 (8.8%) cases have been hospitalized (of 74% with complete data).
 - Most (127; 78%) were infants <6 months of age.
 - No deaths have been reported.
 - Cases have been reported from 51 (84%) of 61 local health jurisdictions.
 - 298 new cases have been reported since the last update on 8/10/2011.
- **2010: 9,146 cases with onset in 2010** have been reported to CDPH for a state rate of **23.4 cases/100,000**. This number has been adjusted from prior reports.
 - This is the most cases reported in 63 years when 9,394 cases were reported in 1947, a peak year, and the highest incidence in 52 years when a rate of 26.0 cases/100,000 was reported in 1958. Previously, the peak was in 2005 when there were 3,182 cases reported (Figure 3).
 - 808 (9%) cases were hospitalized
 - 445 (55%) of hospitalized cases were infants <3 months of age and 567 (70%) were infants <6 months of age.
 - 431 (76%) of the hospitalized infants <6 months of age with known race and ethnicity were Hispanic.
 - Ten deaths were reported; 9 (90%) were Hispanic infants. Nine fatalities were infants <2 months of age at time of disease onset and had not received any doses of pertussis-containing vaccine and the remainder was an ex-28 week preemie that was 2 months of age and had received the first dose of DTaP only 15 days prior to disease onset. The majority of infant cases in 2010 have occurred in infants <3 months of age (Figure 4).
 - The case-fatality rate among infants <3 months of age is 1.3%.
 - Case Classification:
 - Confirmed: 60%
 - Probable: 19%
 - Suspect: 21%
 - Rates are highest in infants <6 months of age (435.0 cases/100,000), in children aged 6 months to 6 years (62.0 cases/100,000), 7-9 years (67.3 cases/100,000) and adolescents aged 10-18 years (49.3 cases/100,000) (Figure 5). The majority of adolescent cases are in 10-11 year-olds (Figure 6).

- Overall rates by race/ethnicity are highest in Hispanics (26.6/100,000) and whites (21.0/100,000), however age-specific rates indicate that the highest rates are seen in Hispanic infants <6 months of age (575.5/100,000) (Figures 4 and 5).
- The median case rate by county is 17.5 cases per 100,000 (range 0-139) (Table 1).

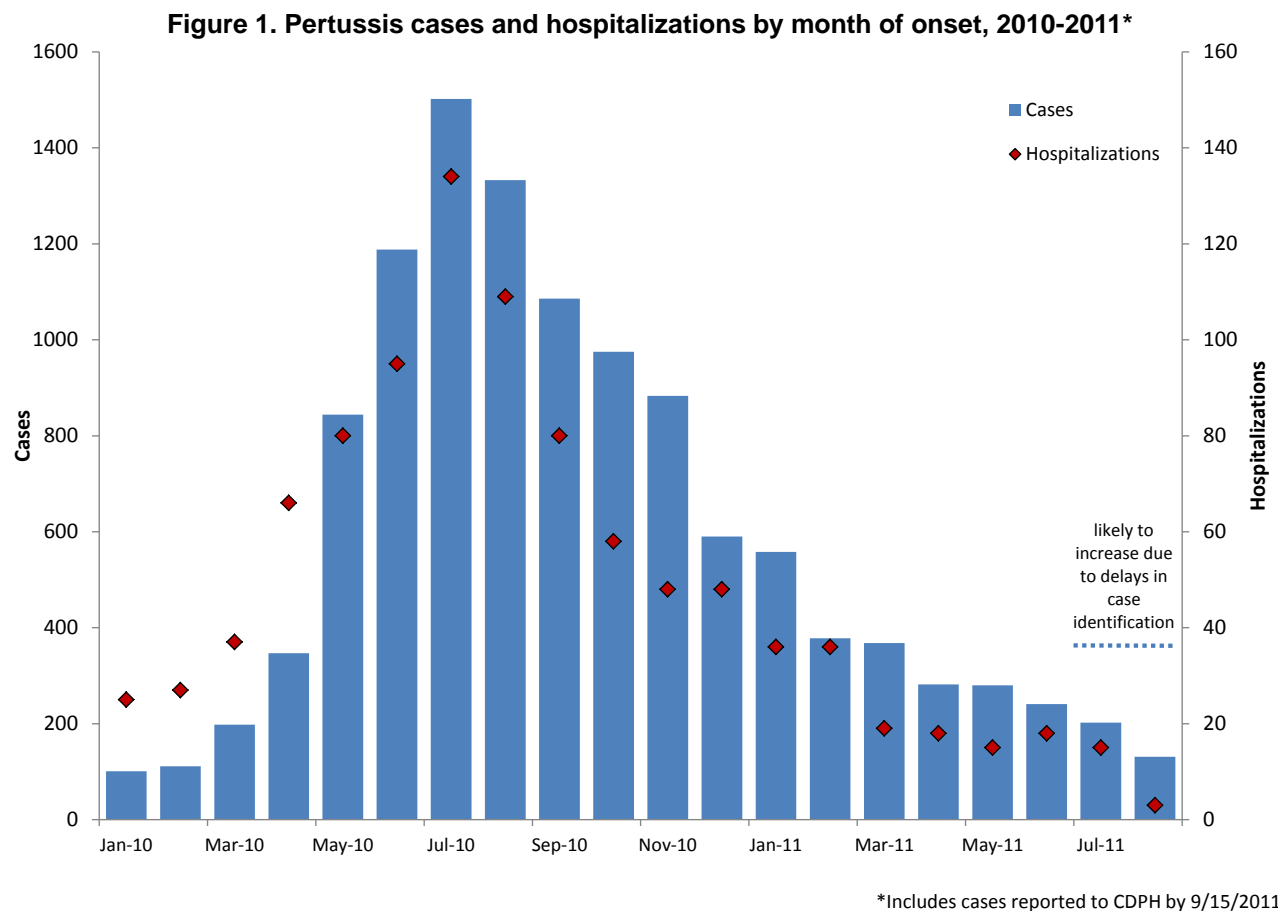
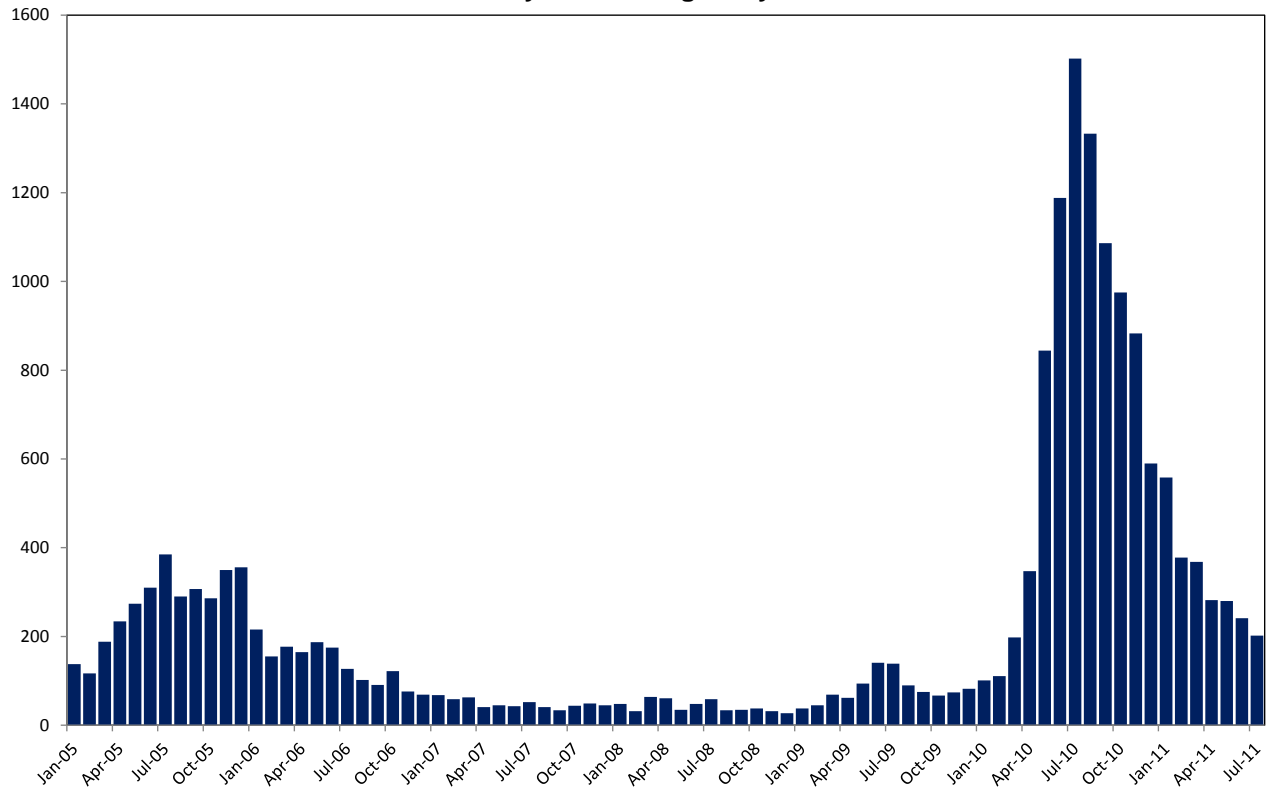
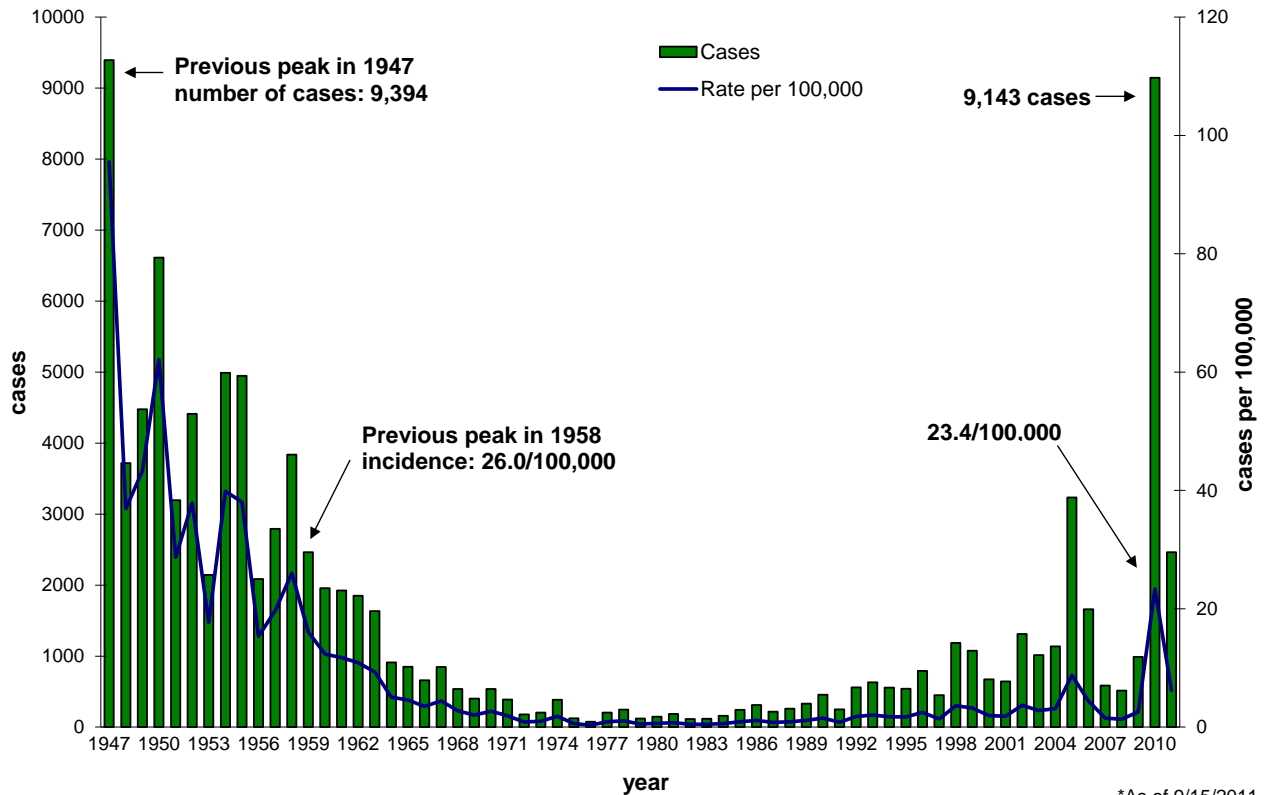


Figure 2. Pertussis cases by month of onset -- California, January 2005 through July 2011*



*Includes cases with onset through 7/31/2011 and reported to CDPH by 9/15/2011

Figure 3. Number of reported pertussis cases by year of onset -- California, 1947-2011*



*As of 9/15/2011

Figure 4. Infant pertussis cases by age in months -- California, 2010

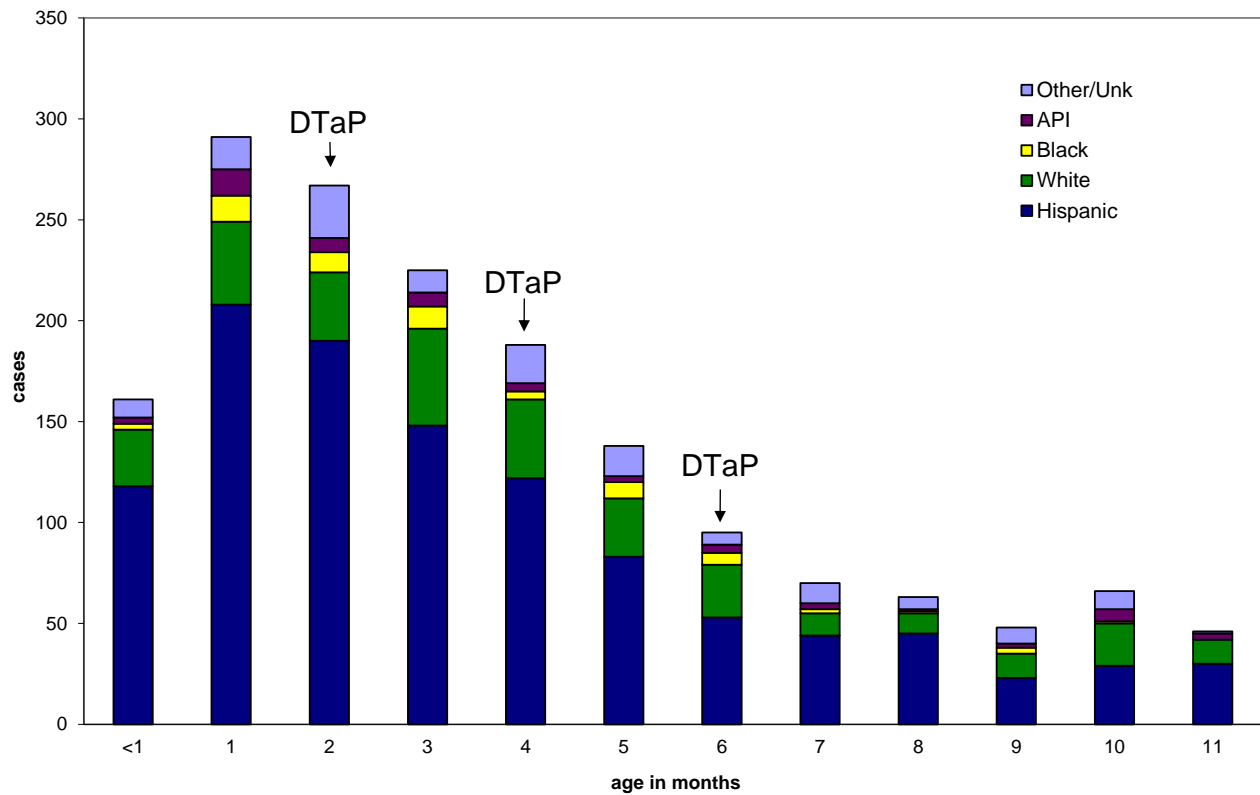


Figure 5. Pertussis rates by age and race/ethnicity -- California, 2010

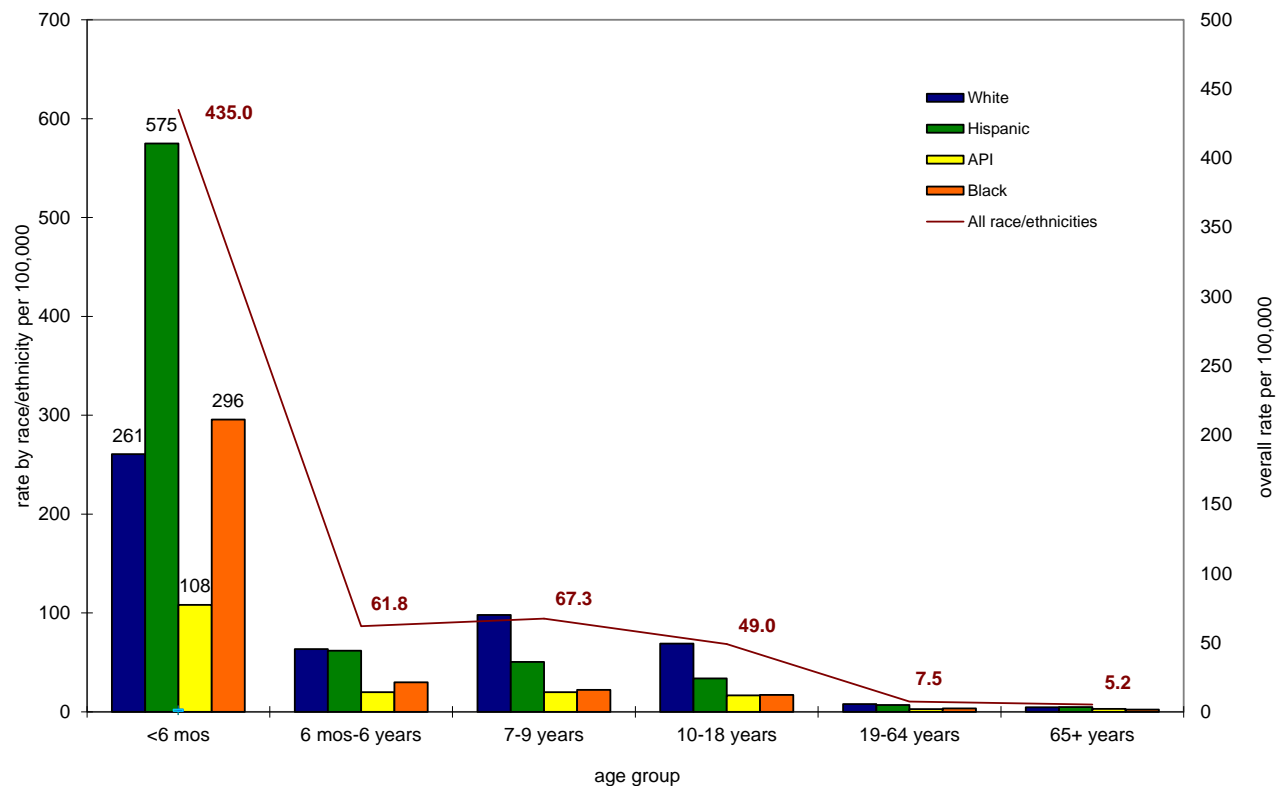


Figure 6. Pertussis cases in children and adolescents aged 0-18 years, by vaccine history -- California, 2010

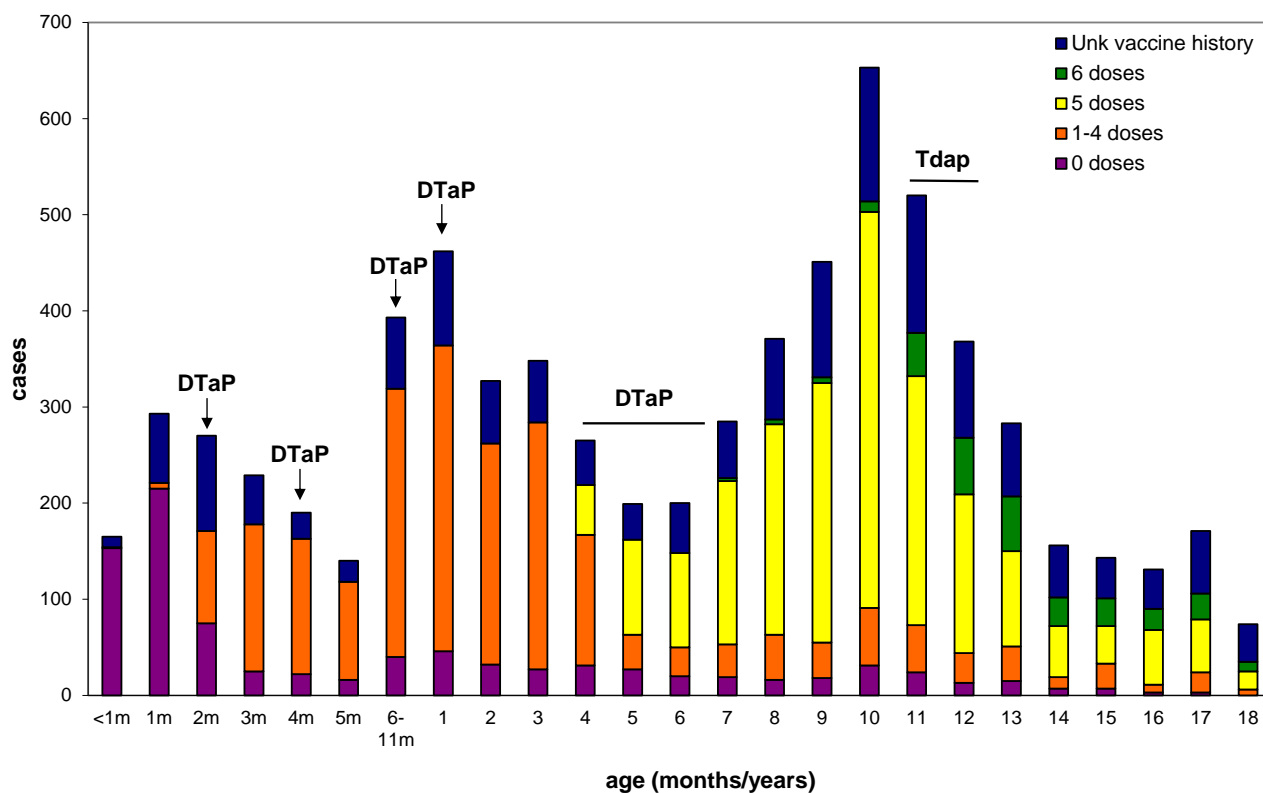


Table 1. Pertussis cases reported to CDPH by local health jurisdiction -- California, 2010-2011

	2010		2011*	
	Cases	Rate	Cases	Rate
CALIFORNIA	9146	23.37	2462	6.22
ALAMEDA	424	29.38	157	10.79
City of Berkeley‡	13	12.13	3	2.80
ALPINE	0	0.00	0	0.00
AMADOR	4	9.92	13	31.66
BUTTE	32	13.91	16	6.81
CALAVERAS	9	18.85	4	8.23
COLUSA	11	46.24	0	0.00
CONTRA COSTA	205	19.05	86	7.88
DEL NORTE	16	51.64	0	0.00
EL DORADO	55	29.05	8	4.16
FRESNO	550	55.92	52	5.18
GLENN	1	3.24	1	3.17
HUMBOLDT	59	43.77	10	7.38
IMPERIAL	9	4.74	3	1.54
INYO	8	41.70	0	0.00
KERN	377	43.25	43	4.82
KINGS	26	15.80	8	4.75
LAKE	5	7.40	1	1.46
LASSEN	1	2.64	0	0.00
LOS ANGELES	1302	13.19	525	5.29
City of Long Beach‡	68	13.80	12	2.44
City of Pasadena‡	24	15.98	6	4.00
MADERA	120	74.02	6	3.59
MARIN	350	137.97	11	4.33
MARIPOSA	10	52.33	1	5.16
MENDOCINO	27	28.98	2	2.13
MERCED	131	47.82	25	8.90
MODOC	0	0.00	0	0.00
MONO	19	128.09	2	13.22
MONTEREY	132	30.47	29	6.63
NAPA	25	17.51	11	7.60
NEVADA	24	23.38	2	1.93
ORANGE	499	15.46	112	3.44
PLACER	50	14.39	17	4.79
PLUMAS	2	9.16	2	9.12
RIVERSIDE	469	20.95	142	6.17
SACRAMENTO	189	13.02	52	3.54
SAN BENITO	7	10.90	4	6.06
SAN BERNARDINO	182	8.36	101	4.56
SAN DIEGO	1141	35.66	314	9.71
SAN FRANCISCO	142	17.36	53	6.45
SAN JOAQUIN	84	11.33	26	3.41
SAN LUIS OBISPO	371	137.54	12	4.41
SAN MATEO	189	25.66	43	5.82
SANTA BARBARA	65	14.96	15	3.43
SANTA CLARA	473	25.74	173	9.34
SANTA CRUZ	87	32.46	20	7.41
SHASTA	32	16.69	25	12.82
SIERRA	0	0.00	0	0.00
SISKIYOU	10	21.23	0	0.00
SOLANO	39	8.84	5	1.12
SONOMA	246	49.66	112	22.41
STANISLAUS	159	28.41	41	7.16
SUTTER	5	4.89	1	0.94
TEHAMA	10	15.25	1	1.49
TRINITY	0	0.00	0	0.00
TULARE	231	49.48	61	12.73
TUOLUMNE	32	54.49	4	6.74
VENTURA	373	43.58	83	9.59
YOLO	17	8.25	6	2.86
YUBA	5	6.22	0	0.00

*Data are preliminary and include cases reported to CDPH as of 9/15/2011

‡City health jurisdictions not included in county total